

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) A non-aqueous electrolyte secondary battery comprising:

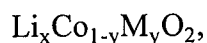
a positive electrode comprising a positive electrode substrate and a positive electrode material mixture layer carried on said positive electrode substrate;

a negative electrode comprising a negative electrode substrate and a negative electrode material mixture layer carried on said negative electrode substrate;

a separator or lithium-ion conductive porous film interposed between said positive electrode and said negative electrode; and

a lithium-ion conductive non-aqueous electrolyte,

wherein said positive electrode material mixture layer comprises a positive electrode active material comprising a lithium transition metal composite oxide, wherein said lithium transition metal composite oxide is represented by the general formula (1):



said general formula (1) satisfies $1.0 \leq x \leq 1.03$ and $0.005 \leq y \leq 0.15$ ~~$0.005 \leq y \leq 0.15$~~ $0.051 \leq y \leq 0.15$,

the element M in said general formula (1) is at least two selected from the group consisting of Mg, Al, Sr, Mn, Ni and Ca,

said negative electrode material mixture layer comprises a negative electrode active material comprising a carbon material that is capable of absorbing and desorbing lithium,

the end of charge voltage of said non-aqueous electrolyte secondary battery is set to 4.25 to 4.5 V in normal operation, and

the ratio $R:W_p/W_n$ is 1.5 to 2.2 in the area where said positive electrode material mixture layer and said negative electrode material mixture layer are opposed to each other, said W_p being the weight of the positive electrode active material contained in said positive electrode material mixture layer per unit opposed area, said W_n being the weight of the negative electrode active material contained in said negative electrode material mixture layer per unit opposed area.

2-3. (Cancelled)

4. (Currently amended) A non-aqueous electrolyte secondary battery comprising:

a positive electrode comprising a positive electrode substrate and a positive electrode material mixture layer carried on said positive electrode substrate;

a negative electrode comprising a negative electrode substrate and a negative electrode material mixture layer carried on said negative electrode substrate;

a separator or lithium-ion conductive porous film interposed between said positive electrode and said negative electrode; and

a lithium-ion conductive non-aqueous electrolyte,

wherein said positive electrode material mixture layer comprises a positive electrode active material comprising a lithium transition metal composite oxide,

wherein said lithium transition metal composite oxide comprises a composite oxide A and a composite oxide B,

said composite oxide A is represented by the general formula (1): $Li_xCo_{1-y}M_yO_2$,

said general formula (1) satisfies $1.0 \leq x \leq 1.03$, and $0.005 \leq y \leq 0.15$ $0.051 \leq y \leq 0.15$,

the element M in said general formula (1) is at least two selected from the group consisting of Mg, Al, Sr, Mn, Ni and Ca,

said composite oxide B is represented by the general formula (2): $\text{Li}_x\text{Ni}_y\text{Mn}_z\text{M}_{1-y-z}\text{O}_2$,

said general formula (2) satisfies $1.0 \leq x \leq 1.03$, $0.3 \leq y \leq 0.5$, $0.3 \leq z \leq 0.5$, and $0.9 \leq y/z \leq 1.1$,

the element M in said general formula (2) is at least one selected from the group consisting of Co, Mg, Al, Ti, Sr and Ca, and

said negative electrode material mixture layer comprises a negative electrode active material comprising a carbon material that is capable of absorbing and desorbing lithium,

the end of charge voltage of said non-aqueous electrolyte secondary battery is set to 4.25 to 4.5 V in normal operation, and

the ratio $R:W_p/W_n$ is 1.5 to 2.2 in the area where said positive electrode material mixture layer and said negative electrode material mixture layer are opposed to each other, said W_p being the weight of the positive electrode active material contained in said positive electrode material mixture layer per unit opposed area, said W_n being the weight of the negative electrode active material contained in said negative electrode material mixture layer per unit opposed area.

5. (Original) The non-aqueous electrolyte secondary battery in accordance with claim 4, wherein the weight ratio between said composite oxide A and said composite oxide B is 9:1 to 1:9.

6. (Original) The non-aqueous electrolyte secondary battery in accordance with claim 1, wherein said positive electrode material mixture layer contains a metal oxide represented by the general formula (3): MO_x ,

said general formula (3) satisfies $0.4 \leq x \leq 2.0$, and

the element M in said general formula (3) is at least one selected from the group consisting of Li, Co, Mg, Al, Ti, Sr, Mn, Ni and Ca.

7. (Original) A charge and discharge system for a non-aqueous electrolyte secondary battery, comprising the non-aqueous electrolyte secondary battery as recited in claim 1 and a charger for said non-aqueous electrolyte secondary battery, wherein said charger is set such that it stops charging when the voltage of said secondary battery reaches 4.25 to 4.5 V.

8. (Previously presented) The non-aqueous electrolyte secondary battery in accordance with claim 1, wherein said carbon material is at least one selected from the group consisting of thermally decomposed carbons, cokes, graphites, glass carbons, material obtained by baking phenolic resin, materials obtained by baking furan resin, carbon fibers and active carbon.

9. (Previously presented) The non-aqueous electrolyte secondary battery in accordance with claim 4, wherein said carbon material is at least one selected from the group consisting of thermally decomposed carbons, cokes, graphites, glass carbons, material obtained by baking phenolic resin, materials obtained by baking furan resin, carbon fibers and active carbon.

10-13. (Cancelled)